

<b>BOAT</b> Name <b>RELENTLESS III</b> Sail Nr <b>30</b>	<b>GPH</b> <b>612.0</b>	<b>HULL</b> Length Overall <b>10.300m</b> Maximum Beam <b>3.536m</b> Displacement <b>4,853kg</b> Draft <b>1.915m</b> Plan Review IMS Reg. Division <b>Performance</b> Dynamic Allowance <b>0.000%</b> Hull Construction <b>Cored</b> Carbon Rudder <b>No</b> Crew Arm Extension
<b>GENERAL</b> Class <b>ITALIA 998</b> Designer <b>POLLI</b> Builder <b>ITALIA YACHTS</b> Series <b>09/2014</b> Age <b>01/2021</b> Age Allowance <b>0.195%</b> Offset File <b>IY998MP.off - 04/11/2015 14:00:04</b> Measurement by - <b>10/01/2021</b>		IMSL <b>9.479m</b> VCGD <b>0.131m</b> Sink <b>18.13kg/mm</b> RL <b>8.401m</b> VCGM <b>0.112m</b> WS <b>24.02m<sup>2</sup></b> LSM0 <b>9.209m</b> Displacement/Length ratio <b>6.2140</b>



**ORC**  
Offshore Racing Congress  
World leader in rating technology

**2020**  
ORC International  
Certificate

**Rating Office**

Offshore  
Racing  
Congress

**COPY ONLY**  
**Invalid for**  
**RACING**

World Leader In Rating Technology

SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	<b>598.7</b>			<b>675.8</b>		
Time on Time	<b>1.0021</b>			<b>0.9988</b>		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	<b>691.2</b>	<b>544.6</b>	<b>492.7</b>	<b>901.8</b>	<b>675.9</b>	<b>603.2</b>
Time on Time	<b>0.9765</b>	<b>1.2395</b>	<b>1.3701</b>	<b>0.7485</b>	<b>0.9987</b>	<b>1.1190</b>

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>1051.4</b>	<b>869.8</b>	<b>770.3</b>	<b>728.5</b>	<b>714.0</b>	<b>709.4</b>	<b>702.3</b>
52°	<b>684.3</b>	<b>577.3</b>	<b>525.7</b>	<b>505.0</b>	<b>497.9</b>	<b>495.0</b>	<b>491.0</b>
60°	<b>644.7</b>	<b>550.9</b>	<b>510.5</b>	<b>492.1</b>	<b>483.6</b>	<b>479.8</b>	<b>476.4</b>
75°	<b>593.2</b>	<b>517.4</b>	<b>492.9</b>	<b>480.2</b>	<b>465.4</b>	<b>455.4</b>	<b>448.6</b>
90°	<b>567.8</b>	<b>502.6</b>	<b>475.6</b>	<b>458.1</b>	<b>446.1</b>	<b>437.0</b>	<b>419.2</b>
110°	<b>582.8</b>	<b>507.0</b>	<b>474.1</b>	<b>449.1</b>	<b>425.3</b>	<b>406.4</b>	<b>383.0</b>
120°	<b>607.5</b>	<b>512.7</b>	<b>476.8</b>	<b>447.4</b>	<b>421.8</b>	<b>406.1</b>	<b>367.8</b>
135°	<b>687.4</b>	<b>549.3</b>	<b>494.1</b>	<b>464.9</b>	<b>436.0</b>	<b>409.1</b>	<b>352.5</b>
150°	<b>811.1</b>	<b>649.0</b>	<b>547.1</b>	<b>498.8</b>	<b>476.8</b>	<b>456.8</b>	<b>408.5</b>
Run VMG	<b>936.5</b>	<b>749.5</b>	<b>631.7</b>	<b>575.1</b>	<b>545.8</b>	<b>505.7</b>	<b>459.8</b>

**Certificate**

Number **US6773**  
ORC Ref **03410000TR4**  
Issued On **15/01/2021**  
VPP Ver. **2020 1.02**  
Valid until **31/01/2021**

**Crew Weight**

Default 612kg  
Maximum **618kg**  
Minimum\* **464kg**  
*\*when applied by the NoR and SI*  
Non Manual Pwr **No**

**Special Scoring**

ToD	ToT
Non Spin GPH <b>655.7</b>	<b>0.9151</b>
Non Spin OSN <b>636.7</b>	<b>0.9424</b>

Selected Courses							
Windward / Leeward	<b>994.0</b>	<b>809.6</b>	<b>701.0</b>	<b>651.8</b>	<b>629.9</b>	<b>607.5</b>	<b>581.0</b>
Circular Random	<b>832.6</b>	<b>676.4</b>	<b>594.2</b>	<b>547.6</b>	<b>519.5</b>	<b>500.8</b>	<b>474.8</b>
Coastal / Long Distance	<b>988.2</b>	<b>758.5</b>	<b>632.4</b>	<b>566.4</b>	<b>532.5</b>	<b>503.7</b>	<b>451.9</b>
Non Spinnaker	<b>914.3</b>	<b>733.1</b>	<b>635.3</b>	<b>578.2</b>	<b>543.3</b>	<b>520.7</b>	<b>492.3</b>

**Sails Limitations**

Headsails	Spinnakers
<b>5</b>	<b>4</b>

Velocity Prediction in Knots for True Wind Speeds							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat Angles	<b>43.5°</b>	<b>42.0°</b>	<b>40.9°</b>	<b>39.8°</b>	<b>39.4°</b>	<b>40.1°</b>	<b>40.3°</b>
Beat VMG	<b>3.42</b>	<b>4.14</b>	<b>4.67</b>	<b>4.94</b>	<b>5.04</b>	<b>5.07</b>	<b>5.13</b>
52°	<b>5.26</b>	<b>6.24</b>	<b>6.85</b>	<b>7.13</b>	<b>7.23</b>	<b>7.27</b>	<b>7.33</b>
60°	<b>5.58</b>	<b>6.53</b>	<b>7.05</b>	<b>7.32</b>	<b>7.44</b>	<b>7.50</b>	<b>7.56</b>
75°	<b>6.07</b>	<b>6.96</b>	<b>7.30</b>	<b>7.50</b>	<b>7.74</b>	<b>7.90</b>	<b>8.03</b>
90°	<b>6.34</b>	<b>7.16</b>	<b>7.57</b>	<b>7.86</b>	<b>8.07</b>	<b>8.24</b>	<b>8.59</b>
110°	<b>6.18</b>	<b>7.10</b>	<b>7.59</b>	<b>8.02</b>	<b>8.47</b>	<b>8.86</b>	<b>9.40</b>
120°	<b>5.93</b>	<b>7.02</b>	<b>7.55</b>	<b>8.05</b>	<b>8.53</b>	<b>8.87</b>	<b>9.79</b>
135°	<b>5.24</b>	<b>6.55</b>	<b>7.29</b>	<b>7.74</b>	<b>8.26</b>	<b>8.80</b>	<b>10.21</b>
150°	<b>4.44</b>	<b>5.55</b>	<b>6.58</b>	<b>7.22</b>	<b>7.55</b>	<b>7.88</b>	<b>8.81</b>
Run VMG	<b>3.84</b>	<b>4.80</b>	<b>5.70</b>	<b>6.26</b>	<b>6.60</b>	<b>7.12</b>	<b>7.83</b>
Gybe Angles	<b>144.5°</b>	<b>148.0°</b>	<b>148.0°</b>	<b>151.0°</b>	<b>174.0°</b>	<b>177.0°</b>	<b>177.0°</b>

**Class Division Length**

CDL = **8.934**

**Storm Sails Areas**

Heavy Weather Jib **25.67**  
Storm Jib (JL=8.97) **9.51**  
Storm Trysail **10.99**

**Owner**

<b>BOAT</b>			
Name	RELENTLESS III	Sail Nr	30
File	US6773	Data in	meters/kilograms
<b>RIG</b>			
Forestay Tension	Aft	Spreaders	2
Inner Stay	None Fitted	Runners/Checkstays	0
Carbon Mast	No	Jib Furler	Yes
Fiber Rigging	No	Main Furler	No
Non-Circular Rigging	No		
Articulated Bowsprit	No		
P	13.065	E	4.803
IG	13.740	J	4.195
ISP	14.812	SFJ	0.090
BAS	1.512	SPL	
FSD	0.040	TPS	5.503
MDT1	0.125	MW	0.185
MDL1	0.181	GO	0.200
MDT2	0.125	BD	0.220
MDL2	0.156	MWT	
TL	0.770	MCG	

<b>INCLINING TEST AND FREEBOARDS</b>			
Inclining Test	Boom Inclining	LCFD	5.870
Flotation date	10/01/2021	SG	1.0240
FFM	1.261	FF	1.260
FAM	0.596	FA	0.599
SFFP	0.000	SAFP	10.300
W1	85.1	PD1	297.6
W2	85.1	PD2	299.2
W3	85.1	PD3	293.2
W4	85.1	PD4	292.7
WD	4.720	GSA	1.0
RSA	1.0	PLM	9000.0
LCF from stem on CL / on sheer	5.656 / 5.887		
Maximum beam station from stem	7.304		
RM Measured	107.0kg-m		
RM Default	118.6kg-m		
Limit of positive stability / Stab.Index	115.8° / 113.8		
Freeboard at mast at 4.285	1.209		



**ORC**  
Offshore Racing Congress  
World leader in rating technology

**2020**  
IMS Measurement  
Certificate

<b>MIZZEN RIG AND SAILS</b>			
N/A			

<b>PROPELLER</b>			
Installation	Strut	PRD	0.425
Type	Folding 2 blades	PBW	0.114
Twin Screw	No	PIPA	0.0038
ST1	0.066	ST3	0.177
ST2	0.177	ST4	0.107
ST5	0.325	EDL	1.285

<b>Certificate</b>	
Number	US6773
ORC Ref	03410000TR4
Issued On	15/01/2021
VPP Ver.	2020 1.02
Valid until	31/01/2021

<b>COMMENTS</b>	
Cushions on board	

<b>MOVABLE BALLAST</b>	
N/A	

<b>CENTERBOARD</b>	
N/A	



<b>SAILS (Maximum Areas)</b>									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.55	1.23	1.97	3.16	4.00	38.51	39.48	P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric Not Available									
Asymmetric on centerline	SLU	SLE	SL	SHW	SFL	Area	Formula		
	16.77	14.82	15.79	9.60	9.83	126.97	AS · (SFL + 4·SHW) / 6		

<b>HEADSAILS</b>												
Area = 0.1125·HLU · (1.445·HLP + 2·HQW + 2·HHW + 1.5·HTW + HUW + 0.5·HHB)												
HBB	HUW	HTW	HHW	HQW	HLP	HLU	Area	Btn	Flying	Meas.Date	Material	Comment
0.09	0.69	1.29	2.38	3.44	4.50	13.51	31.63	Y	No	11/10/2020	Carbon	

<b>MEASUREMENT INVENTORY</b>				
Measurer				
Date	10/01/2021			
Comment				
Internal Ballast total = 0.0				
Id	Item	Weight	Distance	VCG Description
1	Engine	Volvo		D130 30 hp
Id	Item	Weight Description		

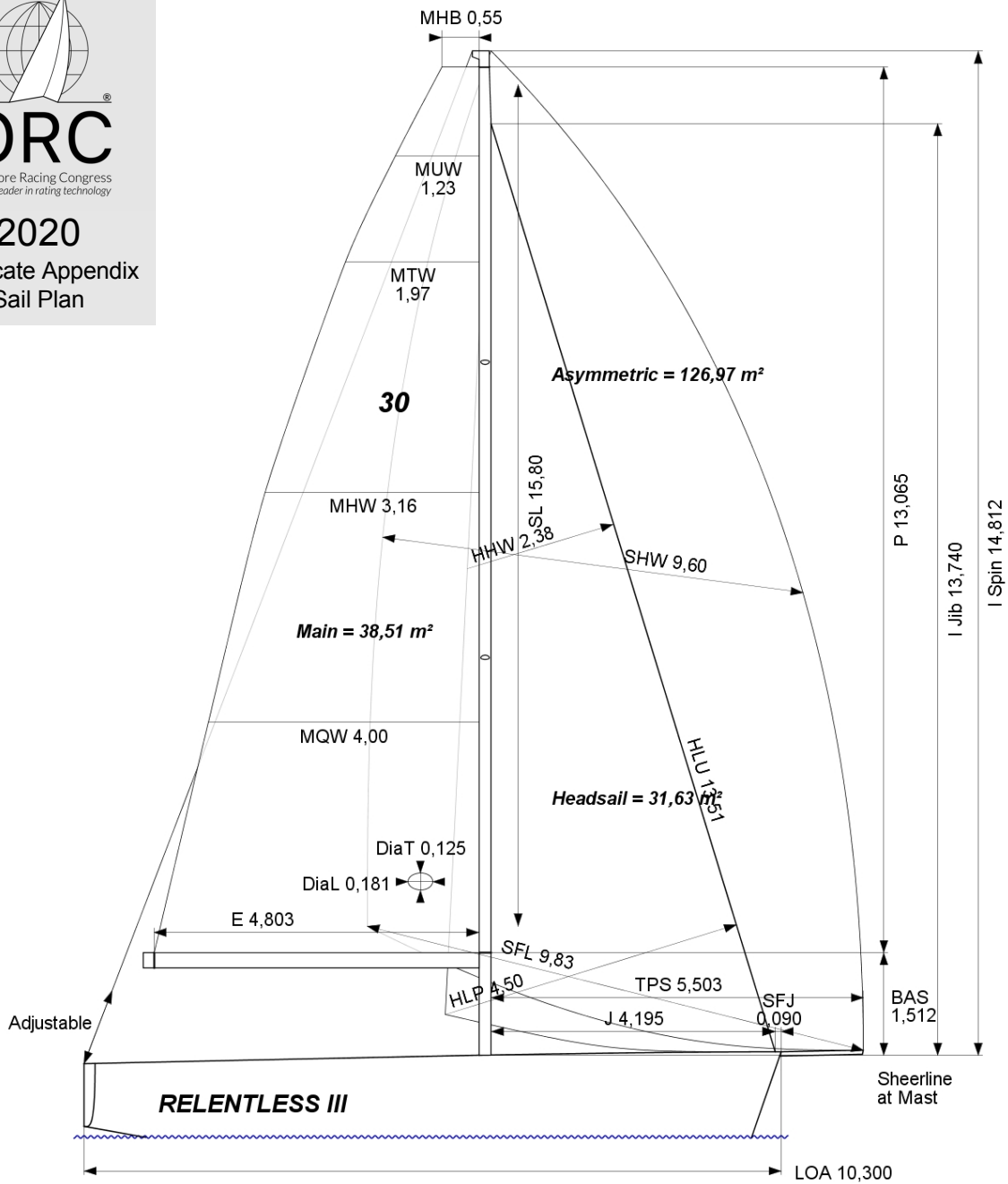
<b>MEASUREMENT INVENTORY</b>									
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG	Condtn	Description	
4	Tank	Fuel	PVC	60.0	7.53	0.00	20-0	Port close to CL	
3	Tank	Hot water	Alloy	20.0	7.43	0.00	0-0	Stbd close to CL	
2	Tank	Waste	PVC	25.0	7.23	0.70	0-0	Stbd side bulkhead	
1	Tank	Water	PVC	110.0	4.13	0.00	0-0	Port side settee	
Id	Item	Weight	Distance	VCG Description					
2	Battery	30.0	4.63	0.00 AGM 12V engine, stbd settee					
1	Battery	60.0	4.23	0.00 2 x AGM 12V house, stbd settee					
2	Misc	8.0	5.73	0.00 Refrigerator compressor, under stove					
1	Misc	15.0	5.73	0.60 Gas stove/oven port side					



**ORC**

Offshore Racing Congress  
World leader in rating technology

**2020**  
Certificate Appendix  
Sail Plan



**SAILS INVENTORY**

**MAINSAIL (1)**

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
63058	0.55	1.23	1.97	3.16	4.00	38.52		11/10/2020	UK	Carbon	

**HEADSAILS (1)**

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Flying	Measurer	Meas.Date	Manufacture	Material	Comment
63059	0.09	0.69	1.29	2.38	3.44	4.50	13.51	107%	31.63	Y	No		11/10/2020	UK	Carbon	

**SYMMETRIC SPINNAKERS (0)**

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
----	-----	-----	----	-----	-----	------	----------	-----------	-------------	----------	---------

**ASYMMETRIC SPINNAKERS (3)**

Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
A2	16.77	14.82	15.80	9.60	9.83	126.97	asym		15/01/2021	Quantum	Unknown	
A3	16.59	14.45	15.52	9.06	9.50	118.32	asym		15/01/2021	UK	Unknown	
A0	15.50	13.52	14.51	6.34	8.41	81.67	asy76		06/01/2021	UK	Unknown	